

NIEHS Superfund Worker Training Program



FY 2003 Accomplishments and Highlights: (September 1, 2002 – August 31, 2003)



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1 Introduction: A Network of Security for the Worker, the Community, and the Nation

Protecting the people who cleanup hazardous waste and materials and who respond to emergencies involving hazardous substances is central to the mission of the National Institute of Environmental Health Sciences' (NIEHS) Worker Education and Training Program (WETP). Congress established this role as part of the Superfund Amendments and Reauthorization Act (SARA) of 1986. Thus, the WETP has supported the development of occupational health and safety training courses for hazardous waste and emergency response workers, supervisors, and professionals that meet the requirements of the Occupational Safety and Health Administration (OSHA), commonly referred to as Hazwoper training, after OSHA's Hazardous Waste Operations and Emergency Response standard. Hazwoper is the foundation upon which firefighters, emergency technicians, skilled support personnel, and cleanup workers are trained to respond to activities at uncontrolled hazardous waste sites.

Since 1986, over 1,000,000 workers have received such training. This represents a national resource of immense value. As this report demonstrates, these workers not only know how to protect themselves in hazardous situations, they are trained and motivated to take action to protect communities "at the fence line" preventing the spread of toxic materials through the air or by the movement of surface or ground water. While there are thousands of hazardous facilities, 123 chemical facilities have been identified that are particularly dangerous, where a toxic "worst case" scenario could put more than a million people at risk. It is at facilities such as these that you will find workers who have received "gold standard" hazardous materials training funded by the NIEHS WETP. The Gold Standard in training means developing and delivering training events of the highest quality possible, using the most advanced adult educational materials, exercises and techniques; items that are reviewed and evaluated by technical experts; that are kept up-to-date or "evergreen;" and that are carried out in appropriate learning environments with appropriate student/teacher ratios. NIEHS is committed to maintaining this high standard because it saves lives and prevents injuries. The NIEHS WETP funds training through competitively awarded cooperative agreements. The recipients are non-profit organizations with demonstrated access to appropriate worker populations and experience in implementing and operating worker health and safety education training programs. The training awards are divided into a number of program areas including:

- **Hazardous Waste Worker Training Program (HWWTP)** –provides model occupational safety and health training for workers who are or may be engaged in activities related to hazardous waste removal or containment or chemical emergency response.
- **Minority Worker Training Program (MWTP)** –focuses on delivering comprehensive training to disadvantaged urban youth in order to prepare them for employment in the construction and environmental cleanup fields.

- **Brownfields Minority Worker Training Program (BMWTP)** - broadens the MWT Program to provide comprehensive training to disadvantaged residents and to foster economic and environmental restoration to communities impacted by brownfields.

These programs are reported on in Sections 2.1, 2.2, and 2.3.

During this year, the WETP again received significant supplemental funding for its awardees in response to the September 11th attacks and subsequent emergency response and remediation activities. The results of this effort are highlighted in Section 2.4 of this report. This includes an update on supplemental Small Business Innovation Research awards.

Funded by the WETP, the National Clearinghouse for Worker Safety and Health Training is the primary communications channel through which the WETP distributes technical reports, news updates, and training information to its awardees, interested members of the hazardous waste worker-training community, and the public. An update of these activities is provided in Section 2.5.

During this period, the WETP held two important meetings. The first meeting -- the 4th National Trainers Exchange provided a mechanism for expert worker health and safety trainers from across the country to share techniques, update technical information, and explore emerging training issues of concern. The second meeting entitled "Training from the Inside Out: Assessing and Refining Our Programs" brought together NIEHS awardees and guests to discuss the critical issue of program and consortium evaluation and effectiveness. Both of these meetings are reported on in Section 2.6.

Finally, in Section 2.7, activities of the WETP staff are documented.

In the words of Dr. Kenneth Olden, Director, NIEHS, hazardous materials workers are often the "forgotten responders" but it is through the efforts of such everyday workers that contaminated sites are remediated and lives and property protected; and, during times of crisis, it is their efforts that prevent the most tragic of consequences. This report is dedicated to these workers and to their protection.

2 2002- 2003 Program Highlights

The WETP has established an effective national framework to develop and provide comprehensive training that is needed to address the complex needs of Superfund cleanups, chemical emergency response, RCRA corrective actions, and urban communities surrounding brownfields sites.

In completing the Sixteenth year of the Superfund WETP (FY 1987-2003), the NIEHS has successfully supported twenty primary awardees. These represent over one hundred different institutions that have trained more than 1 million workers across the country and presented over 61,000 classroom and hands-on training courses, which

have accounted for more than 16 million contact hours of actual training (See Appendix 1).

Thirty million dollars of the September 1, 2002 to August 31, 2003 funds were allocated to continue support of the HWWTP to train hazardous waste workers and emergency responders. Of the \$30 million, three supplemental actions were made, which included \$371,968 for Advanced Training Technologies (ATT), \$99,758 for Superfund Jobs Training Initiative (SuperJTI), and \$5,950,000 for World Trade Center (WTC) training response. Over three million dollars of the funds were allocated to continue support for the MWTP. For the first time, the WETP allocated \$755,009 to support the Small Business Innovation Research (SBIR) Program. As a result of the funding, NIEHS awarded:

- 17 HWWTP awardees received awards totaling \$19,478,456
- 5 MWTP awardees received awards totaling \$3,210,914
- 4 SBIR awardees received awards totaling \$755,009
- 5 ATT awardees received awards totaling \$371,968
- 1 SuperJTI awardee received an award totaling \$99,758
- 6 WTC awardees received awards totaling \$5,950,000

During the past year, health and safety training occurred in all regions of the country to relevant target populations with the prime focus on 29 CFR 1910.120 (See Appendix 3). The seventeen primary worker-training awardees, in conjunction with over eighty collaborating institutions, have delivered 5,586 courses, reaching 95,265 workers, which account for 1,131,498 contact hours of health and safety training. This training ranges from 4-hour refresher programs through more complex train-the-trainer courses lasting up to 120 hours in duration (See Appendix 4). Between September 1, 2002 and August 31, 2003, 36% of the training focused on delivering CERCLA cleanup worker training. This comprises 34,712 workers who received 80 hour training, basic 40 hour training, or 4-8 hour refresher courses out of the annual total of workers reached by the program (See Appendix 5).

2.1 Hazardous Waste Worker Training Program Update

Introduction: After the completion of the third year of the five-year cooperative agreements to support worker-training activities, 17 organizations submitted progress reports and training data. Continuation awards were made on September 1, 2003 after the NIEHS review showed that satisfactory progress had been achieved by all awardees.

The cooperative agreements were made to these non-profit organizations with the NIEHS providing substantial programmatic involvement to support these training activities. These consist of consortia that are collectively made up of over eighty member institutions including universities, community colleges, public health groups, labor-management trust funds, labor organizations, and state and local government units.

Participating programs have developed model curricula and training programs. The core curriculum includes: hazard recognition and control; air, soil, and water sampling aspects; selection, care and use of respirators and other personal protective equipment; engineering controls and their use; safe work practices; proper decontamination procedures; medical surveillance requirements; confined space entry; spill containment and other emergency procedures; community health protection, legal rights and responsibilities; on-site record keeping requirements; and other elements required by the OSHA and EPA regulations.

Training programs have implemented qualitative and quantitative systems to monitor the training. The program has worked closely with EPA, OSHA, NIOSH, DOE, DOT, FEMA and other federal agencies to maintain technical accuracy of training materials and to assure training of the highest quality. The NIEHS refers to this as "gold standard" training. The high quality curricula and other training-related materials developed by the program are available to the public through a NIEHS-sponsored National Clearinghouse for Hazardous Waste Worker Training and its Internet home page at (<<http://www.wetp.org>>).

Who are these consortia? Who benefits from their services? How many benefit? Are there specific examples or anecdotes from their programs that provide useful insights into the nature of health and safety training in this country? To answer these fundamental questions, each of the current NIEHS awardees will be briefly considered.

The New Jersey/ New York Consortium (NJ/NY Consortium)

Who they are: The NJ/NY Consortium consists of the University of Medicine and Dentistry of New Jersey (UMDNJ); Hunter College, City University of New York; New Jersey State Police; New York Committee for Occupational Safety and Health; New York District Council of Carpenters Labor Technical College Health and Safety Department; University at Buffalo; and Universidad Metropolitana, Puerto Rico. The NJ/NY Consortium also receives funding under the Minority Worker Training Program and the Brownfields Minority Worker Training Program reported on separately.

Who benefits: Private sector and city, state, and federal employees in New York, New Jersey, and Puerto Rico. These include police officers, environmental investigators, OSHA compliance inspectors, carpenters and carpenter apprentices, subway workers, radiation workers, emergency medical responders, and hazardous materials remediation workers.

How many: 952 courses were conducted during this time period reaching 18,853 workers. Contact hours totaled 159,968.

Going the extra mile: UMDNJ provided two sessions of their 40-hour hazardous materials course to New York City Department of Health employees who were involved in responding to private citizen inquiries following the anthrax incident in 2001. Knowing that these workers would not be called to respond to a traditional hazardous waste clean up, UMDNJ designed a special final scenario that involved the participants

responding to a mysterious envelope that contained an unknown powder. Students were asked to respond by determining the level of personal protective equipment (PPE) to use, how to safely handle the sample, and the chain-of-custody procedures.

National Puerto Rican Forum (NPRF)

Who they are: NPRF located in New York City, New York heads up a consortium that includes Office of Applied Innovations (OAI), Inc, Chicago, Illinois; Alice Hamilton Occupational Health Center (AHOHC), Silver Spring, Maryland; Maine Labor Group on Health (MLGH), Augusta, Maine; and Era Environmental, Independence, Missouri. NPRF also receives funding under the Minority Worker Training Program and the Brownfields Minority Worker Training Program reported on separately.

Who benefits: First responders in Kentucky, Maine, and the Midwest, as well as hazardous materials workers in Maine, Kentucky, Louisiana, Georgia, California, Indiana, Nevada, Texas, New Jersey, Tennessee, and North Carolina.

How many: The consortium trained a total of 1855 workers, through the delivery of 107 courses generating 21,212 instructional hours.

Protecting Those Who Protect Us: OAI, Inc. conducted a pilot training class on Methamphetamine Labs for Kentucky State and Local Police. An important goal was to provide police and other first responders with information that will help protect them when entering "meth" labs during raids and investigations. Chemists from the State Crime Lab spoke to the group about techniques for gathering and protecting evidence. The participants received not only classroom-based instruction but participated in laboratory demonstrations of how methamphetamine is made. The demonstration of methamphetamine manufacturing also made the course valuable to law enforcement officials when testifying --- knowledgeable about the process, they can answer questions authoritatively.

The New England Consortium (TNEC)

Who they are: The New England Consortium (TNEC) is headed by the University of Massachusetts, Lowell and includes the Massachusetts Coalition for Occupational Safety and Health (MASSCOSH), Connecticut Committee for Occupational Safety and Health (ConnectiCOSH), Rhode Island Committee for Occupational Safety and Health (RICOSH), Western Massachusetts Coalition for Occupational Safety and Health, and the New Hampshire Coalition for Occupational Safety and Health.

Who benefits: TNEC has been working since 1987 to provide top quality participatory hands-on health and safety training to workers throughout the region including. In addition to labor unions and community organizations, examples of organizations whose members received TNEC training include the New England Native American Tribes, OSHA Inspectors Region 1, Boston Environmental Strike Team, U.S. Geological Service, Public Service of New Hampshire, Narragansett Bay Authority, Boston Public Health Department, Covanta Energy, Region 6 HAZMAT Team, JFY Networks (formerly

Jobs for Youth), Boston Connects, Groundwork Providence, and the Essex Agricultural Technical High School (MA).

How many: TNEC conducted sixty-one courses for 852 workers involving 15,200 hours of instruction in its core HAZWOPER training program. TNEC has delivered 40-hour site worker sessions, 24-hour emergency response courses, separate 8-hour refreshers for site workers and emergency responders, and general awareness ER courses.

Buzzard' Bay Oil Spill: Workers trained by the TNEC are often called upon to protect our environmental and economic resources. Such was the case during the May 2003 oil spill at Buzzards Bay in Cape Cod - one of the state's best shell fishing areas, where quahogs, soft-shell clams, scallops and oysters are produced. This spill resulted in a mixture of heavy oil and seawater, most of which stayed on the surface and was washed ashore. There hundreds of workers manually removed the oily globs and tended to oiled birds, frontline work in defense of our environment.

International Union, United Auto Workers (UAW)

Who they are: The International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (UAW) is one of the largest and most diverse unions in North America, with members in virtually every sector of the economy.

Who benefits: UAWs' primary target sector is 3,000 smaller establishments with about 375,000 members, emphasizing the automobile, metalworking, and transportation industry. In addition UAW represents public sector employees with wastewater treatment and transportation assignments and works with minority and underserved community residents who work in or live near hazardous waste sites or industrial facilities.

How many: The UAW conducted 128 courses and delivered training to 2,887 participants with 9,771 contact hours. This included two 24-hour Operations Level Industrial Emergency Response (IER) courses for 42 trainees, totaling 1,008 contact hours.

Containing the Minor to Prevent the Major: What does not happen is often the real story. UAW routinely uses performance checklists and hands-on activities to make certain that its trainees are adequately prepared for a chemical emergency and are empowered to use their training. At a facility in Iowa represented by UAW Local 997, there was a leak from a man-lift battery, with a quantity of battery acid spilled on the shop floor. Management environmental personnel were in the process of putting an incompatible absorbent on the battery acid when UAW-trained Local Union Discussion Leader, Mike Whitmore, also a Local Union Safety Representative at the company, observed the action. As a precaution, he quickly read the absorbent's material safety data sheet and informed management of the incompatibility. His initiative and prompt action prevented the small spill from turning into a dangerous situation.

University of Alabama at Birmingham (UAB)

Who they are: The University of Alabama at Birmingham (UAB) Center for Labor Education and Research (CLEAR)

Who benefits: Communications Workers of America (CWA), Native American tribal members and employees, and Fire and Rescue Service members, regulatory personnel, environmental managers, public emergency responders, hazardous waste workers, hazardous materials handlers and industrial workers

How many: During the 2003 grant year, UAB conducted 132 courses for 2,487 individuals for a total of 33,148 contact hours of training.

How A Life Is Saved: Firefighters from Rock Hill, South Carolina used the expertise gained in several grant-funded UAB courses to complete a confined space rescue in February 2003. The victim had fallen into a 20-foot deep vertical sanitary sewer well. The initial rescuer was equipped with proper protective gear and lowered into the space to find the victim drowning in raw sewage. The rescuer established a patient airway and cervical-spinal stabilization and requested assistance from a second rescuer. Both rescuers then worked to package the patient for removal from the space. The operation was supported by a number of additional personnel including riggers and haul team members. The patient and both rescuers were safely removed from the space in a timely manner. Gross decontamination was conducted at the scene for the patient and both rescuers. All contaminated clothing was bagged as biomedical waste for proper disposal. The patient was turned over to EMS personnel for medical treatment. After decontamination, the Incident Commander ordered the two rescuers to report for medical monitoring with a focus on biological hazards. The patient recovered and the rescuers have experienced no adverse effects. The personnel involved attribute the success of this rescue in part to the training they received through the Incident Management System, Air Monitoring, and Confined Space/Rope Rescue courses conducted by UAB.

Service Employees International Union, AFL-CIO (SEIU)

Who they are: SEIU represents approximately 285,000 workers in acute care hospitals, 10,000 workers in highway maintenance and 7,500 workers in wastewater treatment.

Who benefits: Health care and public sector workers primarily in Maine, New Hampshire, New York, and California. This includes registered nurses, hospital housekeepers, home care workers, employees of a state department of transportation and other state workers.

How many: SEIU HazMat Training Project trained a total of 1,196 participants in 81 classes, for a total of 9,220 hours of training.

The Dangers of Health Care: For health-care workers, the hospital can be a hazardous workplace. SEIU utilizes peer trainers and small group participatory training

methods to empower participants to take an active role in improving their work environment. It is through such training that the hospital worker learns about the dangers of hazardous drugs, radioactive and biomedical waste, and the handling of hazardous materials including cleaning supplies. In addition, SEIU is playing an important role in the area of toxic use reduction such as limiting the use of mercury.

Paper, Allied-Industrial, Chemical and Energy Workers (PACE)

Who they are: The Paper, Allied-Industrial, Chemical and Energy Workers International Union (PACE) represents more than 320,000 workers who manufacture paper, refine oil, and make chemicals, nuclear materials, pharmaceuticals, automobile parts, appliances, small engines, and many other products.

Who benefits: Workers at industrial sites across the country owned by corporations such as 3-M, Chevron-Phillips, Criterion, Georgia Pacific, Mallinckrodt Baker, Molycopr, SCA Tissue, and Sun Oil.

How many: PACE conducted 458 regional and site-hosted classes reaching 8,770 workers, for a total of 55,972 contact hours.

Saving Lives through the Triangle of Prevention: When a 100 year old refinery implements a new safety training program that results in the best safety year in its history, ripples of interest can spread through the industry. PACE convinced management at Cheron Texaco's Richmond Refinery to implement a new system of safety program call the Triangle of Prevention (TOP). TOP is a program that focuses on "near misses", those events that can act as a warning that something should be fixed before an injury occurs. Basic to the system is an understanding that neither workers nor management would be blamed; rather both would work to investigate the failure and to find ways to fix it. At Richmond, TOP paid off - 3 million hours worked with just five recordable injuries and six months in a row without any injury. During the year, other companies joined the PACE TOP program so that it is now offered at 17 industrial sites and has reached 4,696 workers in 233 classes.

George Meany Center for Labor Studies-National Labor College (GMCLS)

Who they are: The George Meany Center for Labor Studies- the National Labor College (GMC-NLC) serves the higher education needs of workingmen and women and their union representatives.

Who benefits: Rail workers from seven rail unions involved in the transportation of hazardous materials. This includes carmen and track workers, engineers, building and bridge department workers, conductors, laborers, signalmen, yardmasters, foremen, and Native American and Spanish-speaking production gang workers.

How many: A total of 719 rail workers participated in 59 training courses for a total of 11,088 contact hours.

The *Dine* - Riding the Rails for Worker Safety: They call themselves "Dine", and while you might find them working in Seattle, New Orleans, Duluth, Brownsville or just about anywhere in between, their home is the Navajo Reservation in Chinle, Arizona. They are rail workers, members of the Brotherhood of Maintenance Way Employees (BMWE) who serve on a Union Pacific railroad production gang that travels the system laying steel, replacing ties and switches, and surfacing hundreds of track miles per year. "Dine" means "the people" in Navaho - a beautiful name for those who are also called upon to respond to derailments and other railroad emergencies that threaten our communities. In August, GMC-NLC conducted a special four-day Chemical/Emergency Response training for these workers and for local Navaho police, fire department, security, school, and hospital personnel. After the course, a student wrote, "I've been to a lot of derailments where I didn't know if there were any chemicals spilled or not. If there was, I didn't know what to do. Now that I received this training, I feel much better prepared."

"The potential danger faced by BMWE members from both emergency releases of hazardous materials and day-to-day exposures to hazardous substances such as creosote, silica dust, solvents, epoxy resins, lead, and other products makes this program essential to the safety and health of our members," stated BMWE President Mac Fleming. "The union's Hazmat Training Program is designed to provide members with accurate information and relevant skills to enhance their safety both on the job and in their homes and communities."

Laborers/Associated General Contractors Education and Training Fund (L-AGC)

Who they are: This consortium is headed by the Laborers/Associated General Contractors Education and Training Fund (L-AGC) and includes the International Brotherhood of Teamsters. The L-AGC Education and Training Fund is a joint labor-management training trust fund, formed by a partnership of the Laborers' International Union of North America (LIUNA) and the Associated General Contractors of America (AGC), who provides comprehensive education and training programs to individuals and organizations within the LIUNA marketplace. The International Brotherhood of Teamsters, with 1.4 million members, is one of the largest and most diverse labor unions in the world. L-AGC also receives funding under the Minority Worker Training Program and the Brownfields Minority Worker Training Program reported on separately.

Who benefits: The consortium targets skilled Laborers, Teamsters, and other construction craft workers engaged in hazardous waste clean up. L-AGC conducted their training at 19 regional centers and three mobile units. These centers are located in New York, Indiana, West Virginia, Missouri, Colorado, New Jersey, Tennessee, Pennsylvania, Michigan, Connecticut, Iowa, Kentucky, Louisiana and Hawaii. The mobile units are based in Southern California, West Virginia and Iowa. The IBT conducted their training at centers in California, Rhode Island, Nevada, Illinois, and New York.

How Many: L-AGC and the IBT combined programs conducted 473 courses for 5,975 students accounting for 146,548 contact hours of training.

When Training Really Counts - The Ricin Incident: The U.S. Capitol Police Special Alert Team and DC Metro Police Alert Team—who were first on the scene after ricin, a highly toxic biological agent, was found in Senator Frist’s office in January 2004—received their hazardous response training from the L-AGC. The L-AGC have trained 260 law enforcement agents in the DC Area since 2001, including the U.S. Park Police, the Metro DC Police, the Federal Protective Service (now part of Homeland Security), the U.S. Marshal’s Service, and the Supreme Court Police to respond to incidents involving Weapons of Mass Destructions (WMD). Of those trained, 180 were from the DC Metro Police Department. Sergeant Frank Edward of the DC Metro Police Department explained that all the protocols developed by the DC Metro Police Department have been based on the L-AGC/NIEHS WETP information and training courses.

“Without the L-AGC, we would not have a foundation from which to go by,” said Sergeant Frank Edward, DC Metro Police, “the trainings provided by the L-AGC have made our nation’s capital safer.”

Within months of the September 11, 2001 terrorist attacks, L-AGC, conducted numerous courses for a wide range of law enforcement agencies in the DC metro area, including the U.S. Capitol Police. They customized their Hazardous Waste Worker Training Course to make it applicable to the needs of law enforcement by emphasizing hazard recognition and the proper use of personal protective equipment, particularly respirators. The training is a 50-hour program that includes hazard recognition, health effects, PPE, decontamination, monitoring and sampling, and field exercise and dress-outs. Through the training, they have addressed WMD and focused primarily on chemical and biological agents. These trainings were coordinated by the West Virginia Labor Training center, a training affiliate of L-AGC.

International Union of Operating Engineers (IUOE)

Who they are: The International Union of Operating Engineers (IUOE) represents 400,000 workers including operating engineers (heavy equipment operators, mechanics, and surveyors), stationary engineers who maintain buildings and industrial complexes, nurses and other health workers, and a variety of public employees.

Who benefits: From Alaska to Florida, Maine to Hawaii, IUOE conducts training for its members in every region of the country. IUOE has provided training for the U.S. Department of Justice, Bureau of Prisons and West Virginia state agencies. In addition, IUOE provided training for workers participating in the recovery of Space Shuttle Columbia debris.

How many: IUOE conducted 600 courses for 12,255 trainees resulting in 161,992 contact hours of training.

A History of Response, A Future of Partnerships: During the initial response and rescue at the World Trade Center, more than 500 IUOE members operated over 175 pieces of heavy equipment. In addition stationary engineers were engaged in maintaining and repairing the systems of buildings damaged from the attack. Even before September 11, 2001, IUOE members had responded to natural and terrorist disasters - the earthquakes in California, the bombing of the Alfred P. Murrah Building, the floods of the Midwest. Now in preparing for the future, IUOE is building an important partnership with the Department of Homeland Security (DHS), developing a course for workers that will prepare them to be part of the nation's defense system (prevention), to take proper actions if an incident occurs (mitigation) and after an incident (clean up). This partnership is also providing DHS with input about the applicability of NIEHS funded training already in existence, a base that is cost effective and efficient in providing the training needed to prevent and mitigate an incident without the further loss of life.

International Chemical Workers Union (ICWU)

Who they are: This consortium is based at the Center for Worker Health & Safety Education which is operated by the International Chemical Workers Union (ICWU) in cooperation with the United Steelworkers of America (USWA), the International Association of Machinists and Aerospace Workers (IAM), the American Flint Glass Workers (AFG), the Rubber Plastics Industry Conference of the USWA (R/PIC), the Aluminum, Brick and Glass Workers Division of the USWA (ABGWD), the Coalition of Black Trade Unionists (CBTU), the United Food and Commercial Workers Union (UFCW) and the American Federation of Teachers (AFT). The consortium also includes the University of Cincinnati and the Greater Cincinnati Occupational Health Center.

Who benefits: With training held both in Cincinnati and in various regional centers, workers throughout the country receive training. In addition, much of this training directly affects local communities. For example, the UFCW, with 1.4 million members, has more than 250,000 members working in over 2,500 plants in the meatpacking and food processing industries with potential exposure to anhydrous ammonia, a refrigerant. Each year there are a number of large ammonia releases that require the evacuation of the facilities and the neighboring communities, the chemical emergency response training received by UFCW members' helps them function as emergency responders during these situations.

How many: This consortium has delivered 47,475 contact hours of training in 192 classes to 3,386 workers.

High School Science Labs - Is Your Child at Risk? The spilled material could be nitric acid, methanol, or one of many other hazardous chemicals commonly found in your child's high school science lab. So what does a teacher do during such an event? Evacuate the school? Open the windows? What actions should be taken until an emergency response team arrives? And what do you tell them when they arrive? To answer such questions, ICWUC recently held a 4-day chemical emergency response-

training course for New York teachers and laboratory specialists. Utilizing a "hands-on" and problem-solving approach, the course covered environmental regulations, hazard recognition, appropriate response actions, a simulated nitric acid spill, and an emergency egress exercise. "Our school is safer now...I am grateful for this training..." was a common response from the participants.

Midwest Consortium for Hazardous Waste Worker Training (Midwest Consortium)

Who they are: Headed by the University of Cincinnati, the consortium includes Southeast Michigan Coalition on Occupational Safety and Health, Greater Cincinnati Occupational Health Center, University of Illinois, University of Kentucky, Michigan State University, Indiana University, University of Tennessee, University of Minnesota, University of Louisville, Lakeshore Technical College, Detroiters Working for Environmental Justice, Citizens for Environmental Justice, Ohio Environmental Council, Fisk University - Environmental Justice Program, and the Three Affiliated Tribes.

Who benefits: Workers in Illinois, Indiana, Kentucky, Michigan, Minnesota, Ohio, Tennessee and Wisconsin.

How many: The Midwest Consortium delivered 589 courses to 9,282 persons resulting in 87,324 contact hours of training.

Superfund Workers/ Superfund Communities- A Core Concern: During the past year, the Midwest Consortium conducted 112 courses for nearly 1,500 Superfund workers. The site workers who come to Consortium refresher training are asked whether they participated in specific tasks during the previous year. For the most recent year, the site workers reported performing site characterization or hazard evaluation (42%), sampling drums (14%), decontaminating tools or equipment (22%), being decontaminated (5%), wearing respirator or SCBA at work (25%), wearing a chemical protective suit at work (24%). These are key tasks covered by initial and refresher training courses.

During 2002-2003, trainees reported employment at National Priority List Superfund sites in the following states: Illinois including Kerr-McGee; Kentucky including Indiana Army Ammunition Plant, Paducah Gaseous Diffusion Plant and Maxie Flats; Tennessee including Copperhill, Milan Army Ammunition Plant, Flur A Rock Hill Labs, McGhee Tyson; Wisconsin including various sites in the state. Many others trained as site workers were employed on State sites or Brownfields. For example, Corps of Engineer trainees in Tennessee worked at numerous sites during the year.

International Association of Firefighters (IAFF)

Who they are: The International Association of Fire Fighters (IAFF) has more than 2,700 affiliates, representing 263,000 fire fighters and paramedics in more than 3,500 communities in the U.S. and Canada.

Who benefits: IAFF continues to address the hazardous materials training needs of emergency responders in those geographical areas with the greatest densities of Superfund sites. The IAFF local affiliates help to determine training needs, allow access to students (i.e., emergency responders) and establish opportunities for repeat courses in their communities. Also during this period the IAFF continued to help in rebuilding the hazardous materials response capabilities of the Fire Department of New York (FDNY) and mutual aid fire departments that represent the greater New Jersey / New York metropolitan area.

How many: IAFF held 160 courses for 3,089 students resulting in 89,432 contact hours of training.

When One Is More - Train-the-Trainers: A key goal of the IAFF is to increase institutional competency throughout the United States fire service by educating more instructors during Instructor Training events. These instructor trainees, in turn, gain the ability and secure the materials needed to return to their communities and educate additional emergency responders. More instructor training events are conducted each year through NIEHS funding than all other IAFF grant awards combined. As a result, the number of trainees who are ultimately reached as a result of the initial grant award increases exponentially over time.

Center to Protect Workers' Rights (CPWR)

Who they are: The Center to Protect Workers' Rights (CPWR) and its Construction Consortium for Hazardous Waste Worker Training includes the following international-national construction unions: Insulators & Asbestos Workers, Iron Workers, Boilermakers, Painters, Bricklayers, Plasterers & Cement Masons, Carpenters, Plumbers & Pipe Fitters, Electrical Workers, Sheet Metal Workers. These unions represent over 2,000,000 workers. CPWR also receives funding under the Minority Worker Training Program and the Brownfields Minority Worker Training Program reported on separately.

Who benefits: Thousands of CPWR trained workers are found at Superfund sites throughout the country.

How many: CPWR this year conducted a total of 251 classes and trained a total of 3,942 workers, technicians and support staff resulting in 74,110 contact hours of training.

Using the New Technologies - CPWR's New DVD-based Course: The course entitled *Disaster Response - Safety and Health Training for Construction Workers* is a powerful training tool designed to assist in the training of thousands of construction workers nationwide. First, 50 master building trades' union trainers were instructed in its use; these are in turn beginning to train 4,000 OSHA-authorized outreach instructors; who, in turn, will train thousands of construction workers nationwide. During disasters, construction workers are often called to help with rescue and recovery operations - heavy equipment operators, iron workers, carpenters, laborers, and other skilled trades

are often needed immediately to move debris to free survivors. This course helps to ensure the safety of these critical responders.

California-Arizona Consortium (CAC)

Who they are: The California-Arizona Consortium is led by the UCLA Labor Occupational Safety and Health (LOSH) Program and includes the University Extension, UC Davis (UCDX); UC Berkeley's Labor Occupational Health Program (LOHP); Arizona State University (ASU), and one affiliate member, the Alaska Health Project (AHP).

Who benefits: Public and private sector workers and supervisors throughout California and Arizona in addition to Alaskan Natives; workers in the Pacific Trust Territories and Hawaii, Spanish-speaking day laborers and janitors, and a significant cohort of Navajo workers through the Bureau of Indian Affairs. These workers are engaged in hazardous waste handling and treatment, air monitoring, hazmat transport and manifesting, site assessment/investigation/and supervision, facility inspection, regulatory compliance, firefighting, emergency response, Superfund and military base cleanup, and a number of other related tasks.

How many: The consortium trained 2,507 workers in 141 courses, for a total of 29,695 contact hours.

Using Your Training - A Few Comments: "I had an incident where sodium hypochloride was mislabeled and dispensed into a drum of hydrofluoric acid, resulting in a violent chemical reaction inside the drum. In addition, a liquid nitrogen tanker broke down, blocking the exit to the waste storage area. The 40 Hour and 8 Hour Refresher played a key role in my ability to professionally and efficiently control myself in this emergency situation. This training is essential for emergency response preparedness. Thanks!!!!"

"Great class! I thought the training might not help much with my work. However, we had a spill here at work; your training helped me get the situation under control. All-in-all it was a very informative class and I know the information will be useful for me in the future." "We will continue the 40 hour trainings and the 8 hour Refresher course offered by LOSH. We appreciate the special attention and coverage of specific areas of interest to our employees. Employee behavior regarding proper use of personal protective equipment has improved. The workers report that they gain useful information from your trainings that they can apply on the job."

American Federation of State, County, and Municipal Employees (AFSCME)

Who they are: The American Federation of State, County, and Municipal Employees (AFSCME) represent over 1.4 million public service and health care workers.

Who benefits: Road, bridge, water sewer, wastewater treatment, sanitation, public safety and security, and hospitals workers across the country.

How many: AFSCME delivered 105 courses to 1,460 trainees for a total of 12,542 contact hours.

One System for Measuring Trainee Performance: AFSCME uses several measures to assess trainees' performance. The primary measure of performance is through trainer observation of trainees' competence in performing skills specific to the course. For example, course design provides instructors with multiple opportunities to observe the trainees donning and doffing personal protective equipment (PPE), setting up and performing decontamination, using body harnesses, tripods and retrieval devices to enter confined spaces and rescue entrants, and using air monitors to detect hazardous atmospheres in confined spaces or simulated spills. Checklists are used to help trainees learn hands-on skills and to help trainers document these skills.

Paper-and-pencil problem solving activities and discussions to assess student performance are also used, especially in the Awareness courses. For instance, in all emergency response courses, a Department of Transportation (DOT) Emergency Response Guidebook exercise, a material safety data sheet (MSDS) exercise, and a NIOSH Pocket Guide exercise are used. Each course is designed with an integrated activity near the end that requires trainees to use information from many of the course modules. These activities are useful teaching tools and help assess the trainees' understanding of the course content and their ability to apply it.

Finally, in operations and technician's courses, the class critiques video-taped spill response exercises.

Hazardous Materials Training and Research Institute (HMTRI)

Who they are: This consortium is lead by Kirkwood Community College's Hazardous Materials Training and Research Institute (HMTRI) and includes the Community and College Consortium for Health and Safety Training (CCCHST). There are 93 colleges and universities, five community-based organizations, eight governmental units, 12 independent training providers and one union in CCCHST, representing 32 states and one territory.

Who benefits: Workers, technicians, and supervisors exposed to hazardous materials encountered during hazardous waste site clean-up, Brownfields redevelopment, transportation of hazardous materials, and in response to spills and releases of hazardous materials.

How many: CCCHST institutions delivered 1,095 courses to 15,728 students, producing 166,274 contact hours of instruction.

Leading the way with Blended Learning: This innovative national system of training is based upon a train-the-trainer model. New CCCHST instructors must successfully complete a two-week Great Environmental Safety Trainers (GreatEST) Train-the-Trainer Institute and participate in training evaluation and data collection. In addition,

instructors must annually enroll in Refresher training and continue to participate in evaluation and data collection. Both of these trainings are conducted by HMTRI.

Upon successful completion of Train-the-Trainer and Refresher Institutes, HMTRI licenses CCCHST members to use HMTRI curriculum, textbooks and teaching aids. Much of this material has been converted for internet-supported delivery. Members use web-based curriculum from HMTRI, register students and provide them local instructor support and hands-on training to complement web-based training.

HMTRI also provides CCCHST instructors on-going technical assistance through an immediate 24-hour, 1-800 line to HMTRI master instructors. HMTRI will also provide quarterly instructor updates through a hybrid online Internet-based video program and a telephone-based conference call audio system.

Thus, even though you might be a trainer at Ilisagvik College, a CCCHST member in Barrow, Alaska, you will still have immediate access to the most up-to-date training materials and support.

2.2 Minority Worker Training Program Update

For the past eight years in urban communities throughout the U.S., the Minority Worker Training Program (MWTP) has successfully trained young minority adults via five awardees: the Center to Protect Workers' Rights, Xavier University, National Puerto Rican Forum, Laborers-AGC Education and Training Fund, and the University of Medicine and Dentistry of New Jersey. The main goal of this program is to provide young people of color, age 18-25, with a vigorous training program that eventually leads to productive employment. Since the inception of the program, 2,628 young minority adults have been successfully trained in worker health and safety for construction and environmental cleanup work. 1,686 of these trainees are employed - representing an overall job placement rate of 64% (See Appendix 6).

Last year, these five programs trained 310 students in 11 cities: Baltimore, MD; Chicago, IL; Exton/Philadelphia, PA; Houston, TX; New Orleans and Baton Rouge, LA; New York City, NY; Oakland, Los Angeles, and San Francisco, CA; and Washington, DC. 190 of these trainees are now gainfully employed, primarily in the construction and environmental fields with wages ranging from \$6.50 to \$34.00.

Courses taken by the students ranged from Life Skills to Environmental Technician training. A total of 203 courses were given representing 110,302 contact hours (See Appendices 7 and 8). Each program developed specialized training programs specific to the workforce needs in their geographic area; however, hazardous materials and waste training remained the primary core curriculum.

Life Skills training is a supportive service tailored to the individual's needs. The services might include remedial mathematics tutoring, budget counseling and cash management, life situational counseling and job readiness skills. These help prepare the students to

take apprenticeship and employment examinations, as well as pass the environmental examinations leading to certifications in lead abatement, asbestos abatement, and hazardous waste operations.

The Center to Protect Workers' Rights (CPWR)

CPWR conducted training in Baltimore, MD in partnership with the East Baltimore Community Corporation/International Union of Painters and Allied Trades; New Orleans, LA, with the Louisiana Regional Council of Carpenters; and in Oakland, CA, with the Cypress Mandela/WIST Training Center. Exceeding their recruitment goal, CPWR trained 80 students (New Orleans - 32; Oakland - 36; Baltimore - 12). The CPWR pre-apprenticeship/environmental construction-training model was implemented in each program. Seventy-two (72) students graduated from this challenging and demanding program; of these 42 or 58% are currently employed.

Under the direction of CPWR's master trainers, environmental training and construction skills training led to certifications that enhanced the students' employability. Courses included hazardous waste, lead worker, asbestos worker and confined space. Two new initiatives were developed during the year. In New Orleans, a trainee/apprentice mentoring program was designed to provide support services to graduate carpenter apprentices. During 2004, the mentor program will be piloted to the 2003 graduates in New Orleans, Oakland, and the East Palo Alto Brownfields program. In Oakland another new initiative was developed with the University of CA-Berkeley-LOHP to conduct outreach and recruitment of minority women, ages 18-25 and expand the life skills training to all students enrolled. Both of these initiatives received local community recognition. UC-Berkeley awarded the Oakland Cypress Mandela/WIST a special award for their exceptional contributions made in the areas of occupational safety, health and training. The New Orleans program received recognition by the Courts for providing training in lieu of jail for at-risk youth who were first time offenders.

Laborers-AGC Education & Training Fund (L-AGC)

This program year, L-AGC focused its training efforts in San Francisco, Houston, Washington, D.C., and Philadelphia. In New Haven CT, follow-up activities and assistance with refresher training and job placement was provided for previous graduates.

Last year, 111 trainees completed training: 25 trainees - San Francisco; 31 - Houston; 46 - Washington DC; and 9 trainees in the Philadelphia. 75 (68%) of these graduates are now employed with salaries ranging from a low of \$14,400 in Houston to a high of \$45,760 in San Francisco. Historically, L-AGC has successfully placed a majority of the program participants, and this year's placement level is consistent with prior years. Faced with a high national unemployment rate during 2003, this consistent job placement record is an impressive benchmark of success.

A major benchmark of success for L-AGC is the increasing number of trainees who are indentured into the Laborers CCL Apprenticeship Program. This year a total of 39

trainees have become CCL apprentices: 4 in the San Francisco and 35 in the DC. Another 4 trainees joined the carpenter's apprenticeship program. The number of apprentices is up significantly from the 28 that were indentured last program year. L-AGC considers apprenticeship as an opportunity to give trainees a seamless transition into lifelong education and training along a broad career path.

This year the number of female trainees in the program went up from 17 to 25. Female participation was high in DC with 15 females, and with San Francisco and Houston having 5 female trainees each. It is L-AGC's hope that this increase in female participation will continue in the future.

In San Francisco, Young Community Developers, Inc. (YCD) again had a very successful year, exceeding its targeted training goals, achieving high placement rates, building partnerships, and leveraging additional resources. 25 students graduated from the program; 20 of which are currently employed, 12 in the field of environmental remediation. YCD considers its track record of job placement a reflection of its developing partnerships with local government, the building trades, and contractors. YCD is the city's First Source Hiring agency and is written into the city's redevelopment contracts where they serve, as a clearinghouse assisting corporations in filling community employment needs. Salaries of the employed graduates range from \$21,944 to \$45,760 a year - a great move from the unemployment rolls to the payrolls and the tax rolls!

The highlight of leveraging resources for the San Francisco program was a \$350,000 earmark of funds in the final Labor-HHS Education Appropriations bill for YCD from Congresswoman and Democratic Leader, Nancy Pelosi. The funds are to provide additional workforce development in the BVHP community and to support the development of YCD's micro-enterprise business, Enviro. Enviro, a state and federal micro-enterprise, engages in joint venture partnerships with union contractors. Enviro uses program graduates as entrepreneurs to secure sub-contracts to perform environmental clean-up work in the area. Congresswoman Pelosi went even further to draft letters to the Secretary of Housing and Urban Development (HUD), the Secretary of the Navy, and to the General Counsel of AIMCO, the company responsible for the housing developments in the BVHP community.

In Houston, the L-AGC training, managed by Make Ready, Inc., has completed its third program year and continues to perform well in all phases of training. This program works in collaboration with the South Central Laborers' Apprenticeship and Training Fund (SCLATF). Make Ready trained 31 participants through two training cycles, with 23 participants successfully completing all of the training. 19 (approximately 83%) have obtained employment directly related to the job skills received in the program. These jobs range from an annual salary of \$14,400 to \$30,240.

In Washington, D.C., the Laborers' Training & Apprenticeship Institute of Washington, D.C. & Vicinity (D.C. Training Fund) has completed its third program year. The program conducted three training cycles; a total of 46 trainees completed training, and 35 of

those have been indentured into the Laborers' CCL Apprenticeship Program and are currently working for union contractors. Salaries range from \$20,800 to \$29,120.

The University of Medicine & Dentistry of New Jersey (NJ/NY Consortium)

Last year, the University of Medicine and Dentistry of New Jersey-School of Public Health and its primary training subcontractor, the New York City District Council of Carpenters Labor Technical College (NYCDCC-LTC) faced the challenge of a very weak local economy with unemployment running as high as 25% in some of the building construction trades.

Due to this, a greater concentration in the life skills component was made to ensure that their graduates were better able to compete for the dwindling number of available, appropriate jobs. Hands-on training in the shop and the trade specific components of the program also received greater emphasis. The Ecological Restoration component, under the guide of the New York City Parks Department, was broadened and made more practical by including a strong environmental justice partner, the Ironbound Community Corporation of Newark, New Jersey. The program continued to include special training in biohazards, and an introduction to Weapons of Mass Destruction.

Approximately 185 people qualified to compete for 35 slots for this training class, a 17-week program, which included training in life skills, basic math and writing, job readiness, construction skills, basic first aid, physical fitness, hazardous waste, asbestos, lead, and confined spaces. A total of 22 courses were conducted for a total of 19, 278 contact hours. Of the 35 recruits, 30 completed the program, or 86%.

All of the students were unemployed or consistently under-employed before enrolling in the program. A total of 17 students have been placed in appropriate work assignments. In addition, one student has successfully obtained his GED and one student has been accepted into a local area college. Graduates currently working earn an average of \$15.34/hr (\$32/hour when adding benefits). The minimum wage earned is \$14.11/hr, while the maximum is \$17.50/hr. The majority of the job placements (15) were with carpentry contractors.

Xavier University of New Orleans (XU)

Xavier University's (XU) Deep South Center for Environmental Justice (DSCEJ) in collaboration with Southern University in Baton Rouge (SUBR), the L-AGC, and the North Baton Rouge Environmental Association implemented year three of the East Baton Rouge Parish Minority Worker Training Program. The program targeted twenty-five African American men and women from communities within East Baton Rouge Parish, LA, all of which are situated in the Mississippi River Chemical Corridor. The program provided six weeks of basic skills training that included Study Skills, Mathematics, Introduction to Hazardous Materials, Introduction to Computer Basics, Physical Fitness, Life Skills, Job Readiness, Individual Counseling, Group Counseling, and Environmental Justice. The L-AGC training facility in Livonia, LA provided an 80-hour General Construction with concrete technology training to the first cycle of students

while the mobile unit completed the second cycle. L-AGC Livonia also provided 80 hour-Hazardous Waste Worker, and 40-hour Lead and Asbestos Abatement training.

The total number of trainees that completed basic skills with eligibility for technical training was twenty-six (26) including 3 females. Twenty graduates have secured employment, for a 77% placement rate

A good example of a successful graduate is André Vincent. He is a rather quiet and unimposing young man. He completed the construction course in Livonia in January. He was the first to obtain employment after completing certification. He is now working as a painter with a local firm earning \$13.00/hour. The graduates of this program not only find jobs, they hold them - as of October 2003, the placement rate from year 2 was 100%!

National Puerto Rican Forum (NPRF)

The National Puerto Rican Forum (NPRF)/OAI Consortium, which includes the Alice Hamilton Occupational Health Center, trained a total of 58 minority youths ages 18-25 years old for the Minority Worker Training Program (MWTP). Students were trained in the Chicago and Washington, DC areas and 36 are currently employed. The NPRF/OAI Consortium offered a total of 30 courses and generated 6,099 contact hours of training.

OAI, Inc. trained 33 students last year. The students were recruited from other OAI programs, by reference from former students, and from organizations such as the Cook County Sheriff's Day Reporting Center (DRC), City of Chicago's Greencorps program, and the Municipal Correctional Institute (MCI) in Kansas City, Missouri. These students received varying levels of training including instrumental enrichment, 40-hour hazardous waste operations and emergency response, job readiness training, resume development, lead and asbestos abatement, hazard communication, OSHA 10 hour, First Aid, Adult CPR, hazardous materials awareness, and mold awareness.

Christopher's story is a referral from the Cook County Sheriff's Department's Day Reporting Center (DRC) and on criminal probation; he entered and successfully completed the OAI MWT program. As a result, OAI communicated with the court and probation officers explaining his perfect attendance and his willingness to learn. Soon he was released from the DRC program. Soon thereafter, he earned his 40-hour HAZWOPER certificate and became the first student employed from his class. He worked evenings and weekends with an environmental company while still taking classes at OAI. He then enrolled in Literacy Chicago's GED Preparation program, which is free to OAI clients and held at OAI in the evenings. After Christopher finished OAI's MWT Program, his probation officer called OAI and asked, "What kind of program is Christopher enrolled in and how can I get some other young people into it?" Christopher currently works full time in the hazmat field earning \$10 per hour and is still working toward his GED.

Alice Hamilton Occupational Health Center (AHOHC) trained 25 students last year in the in the Washington, DC area. The training included general industry safety, fall

protection, and mentoring/career guidance, lead and asbestos abatement, and confined space, radiation safety, hazardous waste operations and emergency response, first aid/CPR, and job readiness. 15 of the graduates are now employed in the environmental or demolition industries earning from \$10 - \$16 per hour.

AHOHC works with Strive DC, the Bridges to Friendship collaborative and other non-profit, community-based partners to implement the training in the District of Columbia. AHOHC uses these collaborative efforts to accomplish a number of tasks, but primarily for recruiting and screening participants, and providing soft skills training. In fact, Strive DC is a recruitment focal point for the program. One graduate, PJ, displayed great enthusiasm and leadership during the six-week training. He was voted the most helpful student by his classmates and was given an award for excellence. After completing the training program PJ accepted an entry –level position with a local environmental firm as an Air Monitoring Technician. It did not take long for the environmental firm to notice Patrick’s exceptional work ethic and talents. His employer made a significant investment in him by sending him to take the NIOSH 582 course, which allowed him to do more technical work and to also up his earning potential. Even with his busy work schedule, PJ still finds time to come and speak with new participants of the training program. PJ is currently working in industrial hygiene and is preparing to go to college where he wants to study Environmental Science and Geography.

2.3 The Brownfields Minority Worker Training Program

The NIEHS Brownfields Minority Worker Training Program (BMWTP), which began in 1998, broadens the MWT program to provide comprehensive training to disadvantaged residents and to foster economic and environmental restoration to communities impacted by brownfields. The funding for this program is provided by interagency agreement with the US EPA. This amounted to \$3,000,000 for this period.

The BMWTP has reached almost 2000 trainees since it began and continues to positively change the lives of the trainees and their families. Trainees prior to entering this program were all un-employed or chronically under employed. Now they are not only providing for their families by earning \$8.50 to \$34.00 an hour, they are giving back to their communities in taxes and community service.

Last year, the five BMWTP awardees provided in depth life skills and environmental training to 344 local residents in 15 Brownfields communities. 247 graduates are now employed, a 72% employment rate. 223 courses were conducted resulting in approximately 118,345 contact hours of training.

What does this program mean? Consider these two not uncommon examples:

- One student started the program as a homeless person, living in the stairwell of a city housing project. The student did not reveal it to the staff until he was arrested for loitering and vagrancy. With staff assistance, he moved into transitional homeless housing and continued in the program. The young man attended every day

supplemented his lunch by using the local church's food pantry, and received each of his certifications and licenses at graduation. The student was hired within two weeks of his graduation, and now boasts a position earning \$14.94/hr, and a benefits package of \$17.06/hr.

- A Federal Probation Officer wrote in his assessment of a student he was overseeing while on probation "His confidence level has improved 100% from where it was a year ago. This is a guy who got in trouble, and for a very long time I thought he had a 50/50 chance of doing the right thing. I have to say that since being in the Brownfields program, he has become incredibly motivated and is very excited about his future which he really wasn't a year ago...I thank you for that, and for bringing your program to us." The student graduated in the top 20% of his class, and was employed in a full-time union-based job situation within three weeks of graduation. He currently earns \$15.44/hr and a benefits package of \$10.56/hr.

The five BMWTP awardees are the Center to Protect Workers' Rights, L-AGC Education and Training Fund, National Puerto Rican Forum, University of Medicine and Dentistry of New Jersey, and Xavier University. Appendix 9 summarizes their training activity. (Note: a separate report on the BMWTP program will be issued in the near future. It will be posted on the NIEHS National Clearinghouse for Worker Safety and Health website at: <http://www.wetp.org>)

The following article from the National Clearinghouse weekly E-Newsbrief summarizes NIEHS activities at the EPA National Brownfields Conference:

***From Justice to Safety to Diversity and Worker Training:
NIEHS Participates in Six Sessions of Special Interest at the
Brownfields 2003 Conference***

From October 27-29, 2003, Portland, Oregon hosted Brownfields 2003: Growing a Greener America. Over 4,100 people from diverse backgrounds participated, making it the largest national brownfields conference to date.

During the conference, the National Institute of Environmental Health Sciences (NIEHS), in partnership with the U.S. Environmental Protection Agency (EPA), was proud to participate in six sessions related to the Brownfields Minority Worker Training Program (BMWTP). NIEHS also shared an information booth with the EPA OSWER and Labor Health and Safety Task Force, which provided awardees the opportunity to share success stories and lessons learned with their colleagues.

The NIEHS began the conference with their Brownfields Program meeting on Monday morning. The moderator of the meeting, Sharon Beard from NIEHS, set the theme for awardees: "The NIEHS, by providing resources to organizations to conduct job skills training for unemployed or disadvantaged brownfields residents, continues to produce highly skilled workers who give back to their communities by increasing the tax base, cleaning up contaminated sites, and re-building the communities where they live."

Awardees shared valuable experiences and lessons learned with the BMWTP. For example, the National Puerto Rican Forum (NPRF) discussed using grant money to extend training programs to a municipal correction facility while Xavier University discussed surmounting challenges by matching requirements with job skills and by integrating flexibility and evaluation into curricula.

The morning session concluded with a special address for the awardees from Linda Garcyznski, director of the EPA Brownfields office. After thanking everyone for their efforts at making the varied job training programs the successes they have become, she then acknowledged the frustrations the awardees must feel due to the barriers created by limited federal funds. She mentioned that while other programs faced budget cuts, funds for this program through NIEHS were fortunately expected to remain around their current levels.

Tuesday's sessions offered the opportunity to discuss a wide range of Brownfields community topics. Confronted by a full room of enthusiastic participants, the two morning session leaders, Michael Senew from the Hazardous Materials Training and Research Institute and Shelia Pressley from the NPRF/Office of Applied Innovation, threw away their prepared script and instead guided the participants through a spirited discussion of training, funding, and job development opportunities in Brownfields communities. Participants frankly discussed ways to redirect federal money from large contractors not associated with local communities to smaller contractors that would rotate the money back into the communities. Also, participants recommended that representatives from the General Service Administration, the Department of Defense, the EPA, and state governments attend the annual meeting to discuss the development of contracts, first source language, and project labor agreements. At the beginning of the "Reconcilable Differences: Building Sustainable Communities by Engaging Diversity" session, facilitator Michael Lythcott stated: "With an ever-shrinking world and an ever-diverse American work force, we are killing our productivity and destroying the quality of life in our workplaces by not more fully embracing diversity and developing the cultural competencies needed to do so." To foster an atmosphere that allowed for the appreciation of one another's cultures, attendees were asked to briefly describe the background of their first name. After that activity, attendees were divided into groups that were assigned unique, real-life case studies covering a broad range of conflicts experienced in professional settings. The issues included those related to transportation, loaning money for licensing fees, and other situations typical for new entrants into the workforce that had recently graduated from worker education training programs. The groups were tasked with identifying which issues were work-related and/or culturally driven, with the ultimate goal of discussing how training programs could be developed in the future to avoid similar conflicts. Tuesday's final session, "Linking Environmental Justice Communities with Job Training Opportunities," welcomed a full room of attendees who were eager to share their thoughts and concerns on Brownfields redevelopment and job placement. Lenny Siegel from the Center for Public Environmental Oversight moderated the session. Participants described their frustrations of being locked out of Brownfields redevelopment projects as local hiring requirements were overlooked because large contracting companies finalized contracts, often with out-of-state employees, months prior. While there are many examples of

people working through these barriers and such techniques were discussed, it did indicate a structural problem that the EPA and other funding institutions such as NIEHS should investigate.

NIEHS participation at the Conference concluded with two well-received sessions on Wednesday. In the morning, Timothy Fields from Tetra Tech EM Inc. moderated the “Achieving Success: How the Job Training Program Works” session. It offered perspectives from developers, contractors, local governments, communities, and labor-based apprenticeship organizations as to why and how job training has become crucial to Brownfields projects and to the diversity of training provided. Kiameesha Evans from the NJ/NY Consortium discussed how the job training programs affiliated with her institution have two primary goals: preparing participants for careers in environmental remediation and construction and developing knowledgeable community advocates and stewards. Through twenty weeks of classes focusing on life skills and health and safety training, participants of such job training programs had a seventy-five percent (75%) success rate from 2001-2003.

Gary DellaVecchia, from the Engineering Remediation Resource Group, discussed the value added of hiring employees with “strong work ethics, positive attitudes, accountability, and the willingness to learn and to be part of a team” that is shaped and encouraged through job training programs. He then told of his involvement in the advisory board at Opportunities Industrialization Center West and how he has committed to hiring locally because of the mutual benefit both contractors and graduates of job training programs can provide to one another – benefits such as lower costs, community involvement, better working environments, and personal growth.

Finally, the brave attendees that showed up for Wednesday’s session in the final time slot witnessed the first time that worker safety was addressed at a Brownfields conference. Moderated by Rod Turpin from the EPA’s Environmental Response Team, “Staying Safe: How To Do It While Cleaning Up Brownfields” provided a helpful overview of the health and safety requirements at Brownfields cleanup sites. Sven Rundman of the Occupational Safety and Health Administration (OSHA) reminded listeners: “The purpose of their work and OSHA’s standards is to protect employee health and safety. Do that well, and you all have done your job.”

Overall, the NIEHS demonstrated a strong, enthusiastic presence during Brownfields 2003 by providing a valuable outlet for information exchange, networking, and education. NIEHS also thanks all those who attended its sessions as it looks forward to continuing its outreach during next year’s conference in St. Louis, MO.

2.4 Homeland Security Training Partnerships: WMD Supplements

On September 1, 2003, NIEHS WETP awarded a total of \$5 million to sixteen organizations to support the creation, delivery, enhancement, and promotion of education and training materials and activities intended to protect the immediate and long-term health and safety of worker populations who are called upon to respond to

significant disasters and terrorist attacks using weapons of mass destruction (WMD). A brief summary of each awardee and their proposed activities is included at the end of this section. The 16 new awards include:

- \$4,536,963 for twelve (12) training supplements to support direct safety and health training to workers who may be involved in disaster response to weapons of mass destruction incidents;
- \$309,966 for three (3) Small Business Innovation Research Program (SBIR) supplemental awards to support the development of E-Learning Products in Disaster Response Training; and
- \$200,000 for a supplemental award to the National Clearinghouse for Worker Safety and Health Training to promote the cause of worker protection during disaster response to terrorist actions.

The funds for these awards were appropriated by Congress to “undertake and continue worker training programs related to the September 11, 2001 terrorist attacks on the United States, including training for a nation-wide cadre of environmental response workers to respond to future terrorist attacks.” A majority of the funds went to current awardees of the WETP who are actively involved in delivering high-quality training to workers whose jobs require hazardous waste handling or response to emergency releases of hazardous materials. Many of these awardees were also called upon to assist in the World Trade Center response and cleanup, providing information, equipment and training resources to high-risk worker populations on the site.

“These awards are important not only to the Program, but to the thousands of workers across the country who, traditionally, are not trained to recognize and respond to the hazards that these types of disasters introduce,” said Joseph “Chip” Hughes, director of the WETP. “We, along with our awardees, have been working to ensure that these “forgotten responders” receive appropriate safety and health training that will prepare them for a range of disaster scenarios and cleanup environments.” Since 9/11, WETB and its awardees have collaborated with federal, state and local-level stakeholders to identify needs and promote the improvement and delivery of training programs for workers who will be expected to respond to WMD attacks. This is the second round of supplemental awards provided by the NIEHS WETP in support of WMD-related training for at-risk worker populations. A total of \$6 million in grants were awarded in 2001 to six non-profit organizations who used the grants to support the training of new and current hazardous material teams for the New York City Fire Department; develop and deliver a three-hour WTC site safety and health orientation and a train-the-trainer program; conduct anthrax remediation training for environmental laborers in New York City and New Jersey.

Summary of 2003 NIEHS WMD Training Supplemental Awards and Activities:

Center to Protect Workers’ Rights (CPWR) - CPWR has been funded to duplicate its DVD-based *Disaster Response Worker Training Program*. They expect to train a total of 50 Master Instructors, 2,000 Outreach Instructors, 440 workers in HAZWOPER refresher courses, and 1200 workers in HAZWOPER awareness, including evaluation.

CPWR will also develop a national registry of Outreach Instructors and examine the feasibility of a registry of trained workers using a Smart Card.

Paper, Allied, Chemical and Energy Workers Union (PACE) -PACE will focus on high-risk chemical processing facilities and begin an expansion of internal capacity to integrate new WMD training activities and courses into all of its programs, including the Integrated Training Sites. PACE will also increase the capacity of its worker trainers to deliver WMD-related modules and also include community residents in training.

SEIU Education and Support Fund (SEIU) - SEIU intends to develop and present Operations and Awareness level training with its award, including refresher training, for healthcare workers and Emergency Medical Technicians. Train-the-trainer (TTT) courses account for the bulk of the training, with funding to support the TTT, in addition to the follow-up courses (trainers returning to the workplace to train workers).

University of Cincinnati (Midwest Consortium) – The Midwest Consortium will develop and integrate WMD modules into ongoing site worker and emergency responder refresher training. The University of Cincinnati will conduct the bulk of the activity under this award. The University of Kentucky, a member of the Consortium, will conduct a smaller portion of the training and lead the evaluation process. The training program places emphasis on Incident Command System (ICS), especially for the private sector.

International Chemical Workers Union Council (ICWUC) - ICWUC will support an ongoing program to train in-plant emergency responders, fire brigades, and hospital/medical personnel with the NIEHS award. The consortium will deliver ICS programs, and conduct Train-the-Trainer courses for a wide variety of industry-based populations. The training plan is focused on industrial target populations and includes the partnerships of many other NIEHS WETP awardees.

International Union of Operating Engineers (IUOE) - IUOE will enhance existing WMD training modules for use in the basic HAZWOPER courses. The IUOE will conduct a new Train-the-Trainer course for stationary engineers who manage large vulnerable buildings and facilities. IUOE will also develop new 2-3 hour training modules to address emergency response, Hazmat transport, HAZWOPER awareness training, stress management, and ICS.

University of Massachusetts – Lowell (New England Consortium) - NEC will develop curriculum for regional emergency preparedness training of emergency medical, clinical, and public health communities. The specific occupations to be addressed are in communities and workplaces in Massachusetts, Connecticut, New Hampshire, and Vermont. The NEC activity focuses on awareness training and identification of new roles in emergency response that these communities now have since 9/11.

National Puerto Rican Forum (NPRF) - NPRF consortium member, OAI, Inc., proposes to implement a WMD Specialist Training Program to upgrade the skills of

current trainers and increase the number of qualified emergency responders. Using OAI, Inc.'s existing Train-the-Trainer Program in the Commonwealth of Kentucky, OAI has identified 30 trainers to be trained to the WMD Specialist level in a five-day Train-the-Trainer Institute. These trainers will then have the needed credentials to train 400 emergency responders in a three-day WMD Specialist course.

NJ/NY Hazardous Materials Worker Training Center (University of Medicine and Dentistry of New Jersey) - Hunter College will conduct seven three-day modular training classes on WMD, including a Train-the-Trainer class. Two of the four members of the NJ/NY Hazardous Materials Worker Training Center, the University of Buffalo and the New York Committee for Occupational Safety and Health (NYCOSH), will conduct separate training activities. The University of Buffalo will develop nine computer-based training modules on chemical, biological, radiological, nuclear, and explosive (CBRNE) incidents, WMD detection and monitoring, personal protective equipment (PPE), decontamination, and health and safety recovery operations; and five classroom training courses including public officials' response to WMD and advanced CBRNE technical courses. NYCOSH will develop a Hazardous Waste Refresher Module that specifically addresses the first responder at an Operations level. Versions of this course will be adapted to meet the specific needs of transport workers, nurses, and public officials.

Kirkwood Community College (Hazardous Materials Training and Research Institute, HMTRI) - HMTRI proposes to develop refresher training to include WMD and worker/supervisor HAZMAT training, in compliance with ODP guidelines from the Department of Justice. Through its network of community colleges, HMTRI will be able to diffuse its materials through a significant national network of existing hazmat trainers. HMTRI will also explore the establishment of a program that will search and report information from multiple databases to those planning to respond to terrorist activity. A Train-the-Trainer course, in the format of institutes, will be conducted to meet HAZWOPER standards for WMD preparedness.

Laborers/Associated General Contractors Training Fund (L-AGC) – L-AGC will develop a Basic Emergency Response Awareness (BERA) module, which will include an OSHA 10-hour construction industry outreach training program, ICS, WMD awareness, emergency preparedness, risk communications, and critical incident stress management. L-AGC plans to revise its current 80-hr Hazardous Waste Worker course to incorporate an emergency response awareness module.

United Auto Workers Union (UAW) - UAW will conduct a Train-the-Trainer course for existing UAW worker trainers and deliver the WMD/T awareness modules at ongoing UAW health and safety training programs delivered off the worksite. UAW will deliver worksite WMD/T training programs for facility personnel who may be engaged in emergency response.

The National Clearinghouse for Worker Safety and Health Training (CH) - Operated by MDB, Inc., the CH has been instrumental in promoting the cause of worker protection during responses to terrorist actions, including dispatching a construction safety expert to Ground Zero and producing three influential reports on the importance of

preparedness through training. Under this new supplemental award, the CH will promote the importance of OSHA HAZWOPER training and the WMD work of the WETP and its awardees among key federal, state, and local agencies and organizations. The Clearinghouse will also develop an emergency activation plan for the WETP to quickly provide health and safety experts in the time of a disaster. Finally, the CH will coordinate a pilot program to evaluate the emergency activation plan and a registry of trained construction workers to assess their value and practicality.

SBIR Supplemental Awards

Advanced Technologies & Laboratories Int. (ATL) - ATL will develop, test and evaluate two new training modules for skilled support personnel (SSP) WMD training that will be compatible with the Web-based Training Center being developed under its primary SBIR grant awarded by the NIEHS in 2002. The modules will be on the North American Emergency Response Guidebook and the Incident Command System, respectively. Both the NIEHS and the Department of Homeland Security identified the need for these two training modules.

FOF Communications, Inc. (FOF) - FOF Communications will develop two CD-based and Internet-based e-teaching products as part of its e-HazTools product being developed under its primary SBIR grant awarded by the NIEHS in 2002. These products, intended for SSP involved in WMD incidents, are titled "Weapons of Mass Destruction Awareness" and "Heat Stress," with a special emphasis on the post-WMD incident environment.

Y-Stress, Inc. (Y-Stress) - Y-Stress will create a scenario-based online version of the Department of Transportation's HazMat Transportation Security Awareness Training Module. This enhances the work Y-Stress has already undertaken under their primary SBIR grant awarded by the NIEHS in 2002. Based upon principles of hazardous material access and handling, this module will meet the training needs required by regulation for railroad SSP in the area of security, including specific security procedures, employee responsibilities, and actions to take in the event of security breaches.

2.5 NIEHS National Clearinghouse for Worker Safety and Health Training Update

The NIEHS National Clearinghouse for Worker Safety and Health Training (Clearinghouse) is a national resource for members of the worker education and training community. It targets workers and trainers who are involved in the handling of hazardous waste or in responding to emergency releases of hazardous materials and terrorist actions.

Funded by the NIEHS WETP, the National Clearinghouse is the primary communications channel through which the WETP distributes technical reports, news updates, and training information to its awardees, interested members of the hazardous

waste worker-training community, and the public. This past year the Clearinghouse also provided a wide array of communication services to the WETP.

FY 2003 was a year of significant change and progress in terms of staffing and project work. The contract year began with the welcome introduction of a new staff member, Dr. Bruce Lippy, who now holds the position of Director of the NIEHS National Clearinghouse for Worker Safety and Health Training. Dr. Lippy brought a highly relevant technical background (he is a Certified Industrial Hygienist and a Certified Safety Professional) to the Clearinghouse team, as well as knowledge of the WETP awardee community and its training history to this contract. As the new Project Director of the contract, his arrival brought a subsequent review of FY2002 contract tasks and reporting requirements, resulting in the revision and streamlining of tasks and procedures. In addition, some new tasks were added that addressed emerging or new priorities for NIEHS Worker Education and Training Branch (WETB) staff in FY2003.

A major focus of the WETP activity this year continued to be that of training requirements for worker populations whose job responsibilities introduced the potential to respond to WMD or other large-scale events involving chemical, nuclear, biological, radiological or explosive agents. Accordingly, Clearinghouse staff supported and spearheaded a number of projects in support of the WETP's WMD training initiative, including: logistics and content coordination of the New Threats workshop in October of 2002; the completion and promotion of the Feasibility study in December of 2002; a brief examination of the TOPOFF 2 exercise in May 2003; and the representation of the WETP's WMD efforts at various presentations and meetings throughout the contract year.

The Clearinghouse produced and disseminated a new Brownfields Minority Worker Training Program (BMWTP) brochure and working with awardees to raise awareness of the BMWTP at the Brownfields 2003 conference and in their own organizations and local media. In addition, the Clearinghouse continued to publicize a weekly E-Newsbrief - a free weekly newsletter focusing on new developments in the world of worker health and safety. Each issue provides summaries of the latest worker health and safety news from newspapers, magazines, journals, government reports, and the Web, along with links to the original documents. Also featured each week are updates from government agencies that handle hazmat and worker safety issues such as DOE, EPA, and OSHA. Current and past Newsbriefs can be viewed at: <http://www.wetp.org/wetp/index.cfm>.

The Clearinghouse continued to maintain its website where technical reports, curricula, and other information is made available. (<http://www.wetp.org>)

The Clearinghouse is proud to support the work of the WETP and its awardee community, particularly during a time in U.S. history when policy makers remain highly focused on the funding, preparedness, and training needs of awardee worker populations. The Clearinghouse staff continues to be responsive to the WETP's communications and technical needs, demonstrating ongoing support of the Program's priorities and overall mission.

2.6 Update on Two important NIEHS meetings - 4th National Trainers Exchange and Training from the Inside Out: Assessing and Refining Our Programs

4th National Trainers Exchange -Training for Change: Changing Our Training

"Worker Training" is a constantly changing field, particularly in the area of occupational safety and health where scientific research, regulatory and legislative initiatives, and innovations in educational methodology are applied on an almost daily basis. With funding from the NIEHS WETP, 18 different Awardee consortia, representing over 80 individual organizations, have developed one of the most highly skilled networks of trainers in this country. Periodically, because these expert trainers are in the forefront of their profession, the NIEHS WETP organizes a two-day conference, entitled the National Trainers Exchange, for them to showcase new methods and techniques and to share and evaluate their current practices. The NIEHS WETP believes that this Trainers Exchange is important in advancing the profession of occupational safety and health training; therefore, the proceedings from this conference are carefully documented. These are found at: http://wetp.org/wetp/NTX_CD/Start.html

The 4th. National Trainers Exchange was the largest held by the WETP with over 250 health and safety trainers participating in 40 interactive workshops and plenary sessions. Based on extensive input from trainers and consortia, these sessions were concentrated in the areas of Advanced Training Technologies (e-learning), Instructor Development, Life Skills and Literacy, and Weapons of Mass Destruction (WMD) and Emergency Response. Each workshop/plenary was organized according to adult learning principles and included, as appropriate, participatory activities, hands-on demonstrations of particular training techniques, skill building exercises, or facilitated discussions of technical issues.

Of special note were those workshops in the Life Skills and Instructor Development and the WMD/ Emergency Response tracks. The life skills sessions on cultural awareness and competence allowed many trainers to grapple with issues of cultural stereotyping including race, age, abilities, and language. Each session also provided attendees with a series of tools that can be used in re-shaping their own classroom and teaching environments. The WMD sessions on Critical Incident Stress Management (CISM) and What You Need to Know About Bioterrorism Diseases received very positive evaluations. The CISM model by the International Association of Firefighters shared the key elements for effective stress management before, during and after critical incidents. For example, it addressed how pre-disaster preparedness such as team development and pre training could maximize the effectiveness of a stress management program. The HMTRI/Community College Consortium conducted the bioterrorism session, which included presentations and facilitated discussion. Focusing on seven of these biological agents (*Bacillus anthracis*, *Variola major*, *Francisella tularensis*, *Yersinia pestis*, *Clostridium botulinum*, *Staphylococcus aureus*, and *Salmonella enteritidis*) the different exposure routes, emergency response requirements, personal protection needs, long and short-term health impacts and fatality rates were examined.

Training from the Inside Out: Assessing and Refining Our Programs

In December 2003, the NIEHS WETP held a combined awardees meeting and technical workshop entitled " Training from the Inside Out: Assessing and Refining Our Programs." Discussed during the awardees meeting were a summary of training delivery to workforce sectors and types of training over the past five years; accomplishments and new opportunities of proposed special initiatives from the last RFA; a look at workshop topics, recommendations, and insights from technical workshops over the past 5 years.

This was followed by roundtable presentations and discussion on the topic of program and organizational effectiveness, challenges and emerging issues. There is great variety among the NIEHS WETP awardees: differences in size, organizational structure, mission, and training audiences. In view of this, the discussion considered what standards for measuring organizational effectiveness recognize these differences? How should these standards be used? Three awardees presented examples of how to pursue the goal of building, maintaining, and using an effective organization or consortium, which was followed by a discussion of the variety of measures already being used within the WETP community.

The following day the technical workshop focuses on emerging issues for worker training. This included a discussion of how the awardees have adapted to address issues of diversity, outreach and cultural competence. As the demographics of the construction and the remediation workforces change, there is a need to review training strategies to engage these populations. According to OSHA, by 2002, 29 percent of all construction workers were Hispanic and 37 percent of all fatalities were Hispanic. In 1996, 56 percent of all Hispanic construction fatalities were foreign-born workers, but in 2002, 81 percent of the fatalities involved foreign-born workers. This session was designed to assist attendees in addressing these challenges.

Later, the topic of training and homeland security was explored. A review of the collective work of the NIEHS WETP community from September 11, 2001 to the present was given. Particular emphasis was placed on collaborations on training for construction workers, skilled support personnel, and awardee activities supported by supplemental funding for terrorism preparedness.

Other topics included Public Health Strategies to Protect Workers During Responses to Terrorism; Chemical Terrorism: The View from the U.S. Chemical Safety and Hazard Investigation Board Emergency Response and Protecting Infrastructure Workers: Training At-Risk Sectors in Emergency Response

Breakout sessions followed on the topics of skilled support personnel, instructor and worker training; Chemical security; and Hazmat for health care and infrastructure workers.

On the final day, after an address by Dr. Kenneth Olden, Director, NIEHS, the following topics, considered emerging issues within the health and safety community, were

discussed: Mold: Health and Training Implications for Worker Populations; and Advanced Training Technologies and /E-Learning.

The proceedings from this important meeting are being finalized and will soon be available on the National Clearinghouse website: wetp.org.

2.7 Program Update for September 1, 2003 – August 31, 2004

On July 1, 2003, all the current NIEHS Awardees submitted reapplications for continued funding for the period beginning September 1, 2003. This is the fourth annual segment of a five-year funding cycle. Each of the reapplications detailed program accomplishments and proposed training plans for the current year.

For each component of each awardee's non-competing reapplication, an analysis and review was carried out to evaluate the program progress during the current year, compliance with existing terms and conditions, measures of program effectiveness, and other quality assurance factors. For each awardee, individual progress report forms were developed, along with budget worksheets, in which targeted reductions were made in specific line item categories.

Thirty million dollars of the September 1, 2003 to August 31, 2004 funds were allocated to continue support of the HWWTP to train hazardous waste workers and emergency responders. Of the \$30 million, one supplemental action was made, which included \$4,337,275 for World Trade Center (WTC) training response. Over three million dollars of the funds were allocated to continue support for the MWTP. The WETP allocated \$858,527 to support the Small Business Innovation Research (SBIR) E-Learning Program. As a result of the funding, NIEHS awarded:

- 17 HWWTP awardees received awards totaling \$21,063,198
- 5 MWTP awardees received awards totaling \$3,300,000
- 4 SBIR awardees received awards totaling \$858,527
- 12 WTC awardees received awards totaling \$4,337,275

See Appendix 10 for awardee breakout of funds for the budget period of September 1, 2003 to August 31, 2004. Budget adjustments in the proposed funding plan are based on the training needs of high-risk populations, national geographic coverage in training availability and the published program priorities for training support. Consideration has also been given to previous funding patterns, awardees' efforts to generate program income for independently continuing their programs, and the carryover of unexpended funds from prior years.

2.8 WETP Staff Activities

The WETP staff is very active in exploring new areas of workplace safety and health training related to the mission of the program. The staff has been involved in a number

of activities to stimulate interest in, and knowledge about, the NIEHS and the WETP. The staff has continued to make presentations at various conferences and meetings on the success of the program and have participated in outreach activities with EPA regional offices and other federal agencies. For a complete list of activities please see Appendix 11.

3 Conclusion

As this report is being written, the WETP is in the forth year of our five year cycle of funding. The WETP staff is currently preparing a new request for applications (RFA) for all programs. The solicitation will revisit the themes of worker training established in the current RFA and consider the new themes that have emerged since September 11.

One of the most important of these themes is the absolute importance of training partnerships. There are still millions of workers in need of initial or refresher training. There are thousands of employers in need of qualified, trained and certified workers. There are still far too many communities where abandoned hazardous waste sites and poverty are closely linked and whose future depends upon cost-effective and safe solutions.

It is through partnerships that those with a need meet those with a resource. In April 2003, the NIEHS WETP will sponsor a meeting on partnerships for prevention, for protection, and for preparedness. It will discuss the partnerships that current NIEHS awardees have forged within the public and private sectors. It will identify successful models and seek to build upon these successes. In addition, it will look at the federal partnerships that are key to the success of the NIEHS WETP program. The missions of the Department of Homeland Security, the Occupational Safety and Health Administration, and the Environmental Protection Agency are critical to this country's future and to the health and safety of workers and communities. The NIEHS WETP seeks to assist these and other agencies in meeting their goals and obligations. It is in this spirit that this report has been prepared.

Appendix 1: Sixteen-Year Summary

HAZARDOUS WASTE WORKER TRAINING PROGRAM SIXTEEN-YEAR TRAINING SUMMARY FOR BUDGET PERIOD 09/01/1988-08/31/2003			
Year	Total Courses	Total Workers	Total Contact Hours
1988	623	12,319	261,542
1989	1,353	29,827	551,832
1990	5,143	123,358	2,120,390
1991	2,731	58,637	878,673
1992	2,973	65,000	1,100,381
1993	2,651	56,000	789,226
1994	4,025	65,716	1,102,234
1995	4,667	81,245	1,391,440
1996	4,752	73,724	1,087,919
1997	4,212	79,976	1,041,792
1998	4,810	84,261	1,091,932
1999	3,980	74,013	954,935
2000	4,124	75,155	983,183
2001	4,806	79,710	1,030,257
2002	5,298	93,996	1,098,154
2003	5,586	95,265	1,131,498
TOTAL	61,734	1,148,202	16,615,388

Appendix 2: 2002 – 2003 Funding

EPA/NIEHS WORKER EDUCATION AND TRAINING AWARDS FOR BUDGET PERIOD 09/01/2002-08/31/2003							
AWARDEE	HWWTP 9/02 AWARD	SBIR 9/02 AWARD	ATT 9/02 AWARD	SJTI 9/02 Award	WTC 9/02 AWARD	MWTP 9/02 AWARD	9/02 TOTALS
University of Alabama Birmingham	497,676		71,969				569,645
International Chemical Workers Union Council	1,855,274						1,855,274
International Association of Fire Fighters	712,478		100,000		3,205,597		4,018,075
George Meany Center for Labor Studies	588,366		50,000				638,366
University of Massachusetts, Lowell	966,084						966,084
University of California at Los Angeles	1,070,038						1,070,038
Laborers-AGC Education and Training Fund	3,804,040			99,758	314,645	918,683	5,137,126
Paper, Allied-Industrial, Chemical and Energy Worker International Union	1,204,378						1,204,378
HMTRI Kirkwood Community College	611,957						611,957
Service Employees International Union	563,226						563,226
University of Medicine & Dentistry of New Jersey	916,458		99,999		398,711	585,071	2,000,239
International Union, United Auto Workers	753,320		50,000				803,320
International Union of Operating Engineers	1,419,809				1,451,047		2,870,856
University of Cincinnati	1,653,230						1,653,230
Center to Protect Workers' Rights	1,461,097				100,000	673,973	2,235,070
Xavier University						468,995	468,995
AFSCME Training and Education Institute	696,947						696,947
National Puerto Rican Forum	704,078				480,000	564,192	1,748,270
Y-Stress, Inc.		199,213					199,213
FOF Communications, Inc		159,279					159,279
New Leaf Interactive Media		199,020					199,020
Advanced Technologies & Laboratories International		197,497					199,020
TOTAL	19,478,456	755,009	371,968	99,758	5,950,000	3,210,914	29,866,105

Appendix 3: Course Data by EPA Region

HWWTP COURSE DATA BY EPA REGION FOR BUDGET PERIOD 09/01/2002 - 08/31/2003			
EPA REGION	COURSES COMPLETED	WORKERS TRAINED	CONTACT HOURS
Region 1	228	3,964	57,774
Region 2	1,599	30,104	306,120
Region 3	367	6,156	86,669
Region 4	512	7,675	103,741
Region 5	1,245	22,763	254,830
Region 6	199	3,502	37,184
Region 7	464	6,443	82,086
Region 8	172	2,357	27,326
Region 9	604	10,111	134,896
Region 10	196	2,190	40,873
TOTAL	5,586	95,265	1,131,498

Appendix 4: Total Training by NIEHS Awardee

NIEHS WORKER EDUCATION AND TRAINING AWARDS TOTAL TRAINING FOR BUDGET PERIOD 09/01/2002-08/31/2003			
AWARDEE	COURSES COMPLETED	WORKERS TRAINED	CONTACT HOURS
University of Alabama Birmingham	132	2,487	33,148
International Chemical Workers Union Council	193	3,408	48,003
International Association of Fire Fighters	160	3,089	89,432
George Meany Center for Labor Studies	59	719	11,088
University of Massachusetts, Lowell	62	852	15,200
University of California at Los Angeles	141	2,507	29,695
Laborers-AGC Education and Training Fund	473	5,975	146,548
Paper, Allied-Industrial, Chemical and Energy Worker International Union	458	8,770	55,972
HMTRI Kirkwood Community College	1,095	15,728	166,274
Service Employees International	81	1,196	9,220
University of Medicine & Dentistry of New Jersey	952	18,853	159,968
International Union, United Auto Workers	128	2,887	9,771
International Union of Operating Engineers	600	12,255	161,992
University of Cincinnati	589	9,282	87,324
Center to Protect Workers' Rights	251	3,942	74,110
AFSCME Training and Education Institute	105	1,460	12,542
National Puerto Rican Forum	107	1,855	21,212
TOTAL	5,586	95,265	1,131,498

Appendix 5: Target Populations

HWWTP TARGET POPULATIONS FOR BUDGET PERIOD 09/01/2002-08/31/2003						
TARGET POPULATIONS	# COURSES COMPLETED	% COURSES COMPLETED	# WORKERS TRAINED	% WORKERS TRAINED	# CONTACT HOURS	% CONTACT HOURS
CERCLA Cleanup ¹	2,134	38%	34,712	36%	503,379	44%
Emergency Response	1,697	30%	30,108	32%	339,527	30%
Other Safety and Health	1,202	22%	21,588	23%	164,923	15%
Hazmat Transport	127	2%	1,355	1%	10,930	1%
RCRA/Industrial	302	5%	5,347	6%	79,317	7%
Asbestos Abatement	87	2%	1,515	2%	23,431	2%
Radiation	24	0%	417	0%	3,912	0%
Lead Abatement	13	0%	223	0%	6,080	1%
TOTALS	5,586	100%	95,265	100%	1,131,498	100%

¹The overall majority of training remains in the CERCLA Cleanup training.

Appendix 6: Eight-Year Summary of Training

NIEHS MINORITY WORKER TRAINING PROGRAM EIGHT-YEAR SUMMARY OF TRAINING FOR BUDGET PERIOD 09/01/1996-08/31/2003			
YEAR	STUDENTS TRAINED	PLACED IN JOBS	PERCENTAGE OF STUDENTS PLACED IN JOBS
1996	368	246	67%
1997	310	193	62%
1998	240	154	64%
1999	360	233	65%
2000	364	244	67%
2001	342	204	60%
2002	334	222	66%
2003	310	190	61%
TOTAL	2,628	1,686	64%

Appendix 7: Total Training by MWTP Awardee

NIEHS MWTP WORKER EDUCATION AND TRAINING AWARDS TOTAL TRAINING FOR BUDGET PERIOD 09/01/2002-08/31/2003			
AWARDEE	COURSES COMPLETED	STUDENTS TRAINED	CONTACT HOURS
University of Medicine & Dentistry of New Jersey	22	35	19,278
Laborers-AGC Education and Training Fund	65	111	34,717
Center to Protect Workers' Rights	55	80	40,192
National Puerto Rican Forum	30	58	6,099
Xavier University	31	26	10,016
TOTAL	203	310	110,302

Appendix 8: MWTP Summary of Type and Number of Courses

NIEHS MWTP SUMMARY OF TYPE AND NUMBER OF COURSES FOR BUDGET PERIOD 09/01/2002-08/31/2003	
COURSE NAME	NUMBER OF COURSES
Adult CPR	4
Asbestos Abatement Worker Basic	15
Basic Construction Skills	10
Basic First Aid	4
Basic Math Skills	14
Basic Reading/Writing Skills	9
Basic Superfund Site Worker	19
Business Communication	1
Computer Skills	4
Concrete Practices and Procedures	6
Confined Space	5
Cutting & Burning	1
Environmental Justice	3
Environmental Preparation	5
Environmental Sampling	2
Environmental Technician	1
General Industry Safety	1
General Construction Safety	12
Hazard Communication	5
Lead Abatement Worker Basic	12
Life Skills	24
Lockout/Tagout	1
Mason Tending	3
Mentoring/Career Guidance	16
Microbial Remediation: Mold and Mildew	6
Physical Fitness	10
Radiation Protection Worker/Basic	2
Rigging Signaling	2
Scaffold	6
TOTAL	203

**Appendix 9: Brownfields Minority Worker Training Program Awardees
and Target Communities**

BROWNFIELDS MINORITY WORKER TRAINING PROGRAM AWARDEES AND TARGET COMMUNITIES FOR BUDGET PERIOD 09/01/2002-08/31/2003				
Awardee	Number of Communities	Number of trainees	Brownfields Communities	Job Placement Rates
Center to Protect Workers' Rights	5	106	East Palo Alto, CA and Los Angeles, CA; Salt Lake City, UT; Boston, MA; and St. Paul, MN	79%
L-AGC Education and Training Fund	2	66	Ventura (Southern California, CA) and Detroit, MI	73%
National Puerto Rican Forum, Inc.	2	98	Kansas City, KS/MO and Baltimore, MD	58%
University of Medicine & Dentistry of New Jersey	3	30	New York City and Glen Cove, NY; and Newark, NJ	63%
Xavier University	3	44	New Orleans and Shreveport, LA & Atlanta, GA	89%
Totals	15	344		72%

Appendix 10: 2003 – 2004 Funding

NIEHS WORKER EDUCATION AND TRAINING AWARDS FOR BUDGET PERIOD 09/01/2003-08/31/2004					
AWARDEE	HWWTP 9/03 AWARD	SBIR 9/03 AWARD	WTC 9/03 AWARD	MWTP 9/03 AWARD	9/03 TOTALS
University of Alabama Birmingham	512,615				512,615
International Chemical Workers Union Council	1,910,935		382,325		2,293,260
International Association of Fire Fighters	864,404				864,403
George Meany Center for Labor Studies	606,016				606,016
University of Massachusetts, Lowell	979,615		191,123		1,170,738
University of California at Los Angeles	1,076,389				1,076,389
Laborers-AGC Education and Training Fund	4,307,915		115,026	843,175	5,266,116
Paper, Allied-Industrial, Chemical and Energy Worker International Union	1,246,851		514,968		1,761,819
HMTRI Kirkwood Community College	632,870		484,092		1,116,962
Service Employees International Union	580,122		358,266		938,389
University of Medicine & Dentistry of New Jersey	1,093,748		551,633	602,624	2,248,005
International Union, United Auto Workers	775,918		155,000		930,918
International Union of Operating Engineers	1,462,403		496,993		1,959,396
University of Cincinnati	1,702,833		308,336		2,011,169
Center to Protect Workers' Rights	1,705,047		539,201	694,023	2,938,271
Xavier University				631,799	631,799
AFSCME Training and Education Institute	761,017				761,017
National Puerto Rican Forum	844,500		240,312	528,379	1,613,191
Y-Stress, Inc.		150,000			150,000
FOF Communications, Inc		206,680			206,680
New Leaf Interactive Media		199,730			199,730
Advanced Technologies & Laboratories International		302,117			302,117
TOTAL	21,063,198	858,527	4,337,275	3,300,000	29,559,000

Appendix 11: The WETP Staff Activities for budget period 09/01/2002-08/31/2003

Joseph Hughes

- Mr. Hughes, OD/WETP, participated in and presented at the U.S. National Response Team Training Subcommittee in Washington, DC on November 11, 2002.
- Mr. Hughes, OD/WETP, presented at the New York Committee for Occupational Safety and Health Town Meeting in New York City, New York on December 11, 2002. Mr. Hughes shared information on the NIEHS Worker Education and Training Program regarding the World Trade Center Cleanup efforts.
- Mr. Hughes, OD/WETP, presented at the Federal Emergency Management Agency/Occupational Safety and Health Summit on Federal Disaster Response Personnel Safety-Personal Protective Equipment in Washington, DC on December 17, 2002.
- Mr. Hughes, OD/WETP, presented at the 16th Annual NIOSH Education and Research Centers Meeting in Marco Island, Florida on February 4-5, 2003. Mr. Hughes presentation focused on Weapons of Mass Destruction Training Initiative, New Threats, and Skilled Support Personnel Protection.
- Mr. Hughes, OD/WETP, presented at the 13th Annual Construction Safety and Health Conference and Exposition in Chicago, IL on February 11, 2003. Mr. Hughes moderated a session entitled "Training Skilled Support Personnel at Federal Disaster Sites."
- Mr. Hughes, OD/WETP, participated in and presented at the Federal Disaster Response Meeting in Arlington, VA on February 26, 2003. Representatives from EPA, NIOSH, OSHA, and RAND Corporation also shared their perspective on federal disaster response.
- Mr. Hughes, OD/WETP, participated in the House Appropriations Hearing in Washington, DC on March 27, 2003 in support for the NIEHS Superfund Programs. Mr. Hughes and Drs. Sassaman and Suk accompanied Dr. Olden.
- Mr. Hughes and Mr. Winchel, OD/WETP, presented at the EPA Emergency Support Function #10 Coordination for National Hazmat Disasters Committee in Washington, DC on April 9, 2003.
- Mr. Hughes, OD/WETP, participated in and presented at the CDC Chemical/Radiation Preparedness Workshop in San Francisco, CA on May 5-6, 2003. As part of the Interstate Chemical Terrorism Working Group, NIEHS staff is assisting in a national survey of public health preparedness of state and local health departments for response to terrorist attacks and other disasters.

Sharon Beard

- Ms. Beard and Mr. Outwater, OD/WETP, attended the Brownfields 2002 Conference in Charlotte, North Carolina on November 13-15, 2002. This national conference showcased brownfields cleanup, redevelopment and policy issues. During this meeting, Ms. Beard and Mr. Outwater conducted a meeting of the awardees of the Brownfields Minority Worker Training Program to discuss progress in this training program and promote the model of community based environmental job training program. The meeting also provided an excellent setting to promote the WETP Minority Worker Training Program and Brownfields Minority Worker Training Program.
- Ms. Beard, OD/WETP, attended the U.S. EPA National Environmental Justice Advisory Council (NEJAC) Meeting in Baltimore, Maryland on December 10, 2002. Ms. Beard presented on the accomplishments of the NIEHS Worker Training Activities especially the Minority Worker Training and Brownfields Minority Worker Training program to the NEJAC Waste Subcommittee.
- Ms. Beard, OD/WETB, hosted a Brownfields Focus Meeting in Research Triangle Park, NC on May 20, 2003. This meeting focused on strengthening and promoting our strategic plan for Brownfields issues in 2003. All the NIEHS/WETP Brownfields Minority Worker Training Awardees participated in this meeting. Staff attending and participating in the meeting included Mr. Hughes, Mr. Outwater, and Ms. Thompson, OD/WETB.
- Ms. Beard, OD/WETB, presented at the U.S. EPA Superfund Community Involvement Coordinators Conference on July 21, 2003 in Philadelphia, PA. The presentation was entitled "Keeping it Local: Engaging Community Based Organizations in Workforce Development Programs". The WETP grantees Mark Holdbrooks and Kiameesha Evans from the University of Medicine & Dentistry of New Jersey and Donna McDaniels of the Laborers-AGC Education & Training Program also presented the accomplishments of our Superfund Jobs Training Initiatives as well as Brownfields and Minority Worker Training Programs to the coordinators.

Ted Outwater

- Mr. Outwater, OD/WETB, gave an overview of the NIEHS Worker Education and Training Program to the Knight Journalism/CDC Boot Camp participants in Atlanta, GA on June 21, 2003. This was part of a collaborative activity with the Center for Disease Control and the International Association of Firefighters, an outstanding NIEHS awardee, to provide "awareness level" training for professional journalists designed to assist them in protecting themselves during hazardous materials and weapons of mass destruction incidents.
- Mr. Outwater, OD/WETB, assisted the U.S. Department of HUD as a reviewer for their 2003 Healthy Homes Demonstration Project awards through a series of a

training period and conference calls. The final review meeting was held on August 6, 2003. Dr. Srinivasan, SPHB, worked in collaboration with Mr. Outwater.

All Staff

- NIEHS (through the Worker Education and Training Program), National Institute for Occupational Safety and Health (NIOSH), Johns Hopkins Education and Research Center for Occupational Safety and Health, and MidAtlantic Public Health Training Center co-sponsored a Technical Workshop on the Worker Training in a New Era: Responding to New Threats. This conference drew upon lessons learned from recent terrorist attacks to help attendees better understand and anticipate the safety and health-training needs of workers who would be required to respond to terrorist incidents in the future. The conference was held in Baltimore, Maryland on October 26-27, 2002. Staff attending the workshop and participating in various activities included Mr. Hughes, Ms. Beard, Mr. Outwater, and Ms. Thompson, OD/WETP. On October 25, 2002, the semi-annual the WETP Awardee Meeting was held. Ms. Mason, OPD/GMB, also participated in the meeting.
- Mr. Hughes, OD/WETP, and staff conducted its Spring 2003 Awardee Meeting in Orlando, FL on March 26, 2003. At the meeting over 100 individuals participated by interacting with NIEHS staff during the NIEHS Update and attending breakout sessions pertaining to specific grants and program topics such as A-133 Audits, Financial Management, Sub-Recipient Monitoring, Supplemental Awards, Life Skills/Remedial Education Training, Curricula Development and Redesign of the WETP Data Management System. During this meeting, we introduced a new session format called Health and Safety Rounds, which is a result of recommendations from the WETP Strategic Plan. The WETP Strategic Plan is located at http://www.wetp.org/oldchfiles/awardee_mtgs/fall01/stratplanE.pdf). The Health and Safety Rounds are a new participatory series of sessions that are meant to address relevant topics on health and safety and management issues. Staff attending the workshop and participating in various activities included Ms. Beard, Mr. Outwater, Ms. Thompson, OD/WETP, and Ms. Duke, GMB.
- The NIEHS Worker Education and Training Program sponsored its 4th National Trainers Exchange (NTX) -Training for Change: Changing Our Training in Orlando, FL on March 27-28, 2003. This was the largest Trainers Exchange held by the WETP with over 250 health and safety trainers from 18 different Awardee organizations representing a wealth of knowledge and expertise on training from 80 individual consortia members. Over two days, trainers participated in 40 interactive workshops and plenary sessions with each session running 1-2 hours concentrating in the following areas: Advanced Training Technologies, Instructor Development, Life Skills and Literacy, Weapons of Mass Destruction and Emergency Response. Each workshop/plenary focused on developing a participatory activity that was meant to be a demonstration of a particular training technique, skill building exercise, technical issue update and stimulation or roundtable discussion. Our NIEHS/WETP National Clearinghouse for Worker Safety and Health Training will publish the NTX Proceedings on their website at <http://www.wetp.org> within the next few months.

Staff attending and participating in the NTX included Ms. Beard, Mr. Outwater, and Ms. Thompson, Ms. Cobb, OD/WETP.

- The NIEHS Worker Education and Training Branch conducted a supplemental application review meeting in Research Triangle Park, NC on May 28, 2003. A limited competition of \$4 million in administrative supplements will be awarded to active NIEHS U45 cooperative agreement awardees that can demonstrate previous or current response activities related to Weapons of Mass Destruction (WMD) preparedness training. The purpose of these administrative supplements is to enhance the current worker education and training activities related to worker safety and immediate and long-term health concerns in response to a nationally significant disaster or terrorist attack with Weapons of Mass Destruction (WMD). Staff attending and participating in the meeting included Mr. Hughes, Mr. Winchel, Ms. Beard, Mr. Outwater, Ms. Thompson, Ms. Cobb, OD/WETB, and Ms. Mason, GMB.
- NIEHS hosted a Roundtable on Preparation and Protection of Site Disaster Responders in Beckley, WV on July 9, 2003. Dr. Olden, Director, Mr. Hughes, Ms. Beard, and Mr. Outwater, OD/WETB joined approximately 25 other participants from unions, universities, and other federal agencies to discuss further steps that are needed to adequately train workers who respond to disasters. The Roundtable included a demonstration of the coordinated efforts of emergency medical personnel, police, hazmat experts, and heavy equipment operators to deal with a simulated leak of a chemical from a tank truck and recovery of a victim incapacitated by the leak. Participants concluded that more detailed action plans are needed to determine the specific roles and activation of emergency responders including skilled support personnel when responding to disasters. In addition, a pilot should be developed to test the use of a registry of responders.